

Enclosure 1

GENERAL INSTRUCTIONS

This questionnaire requests information to supplement reports you may have submitted to federal, state or local authorities concerning a release of a hazardous or toxic substance. The instructions below are intended to assist you in completing the questionnaire. Please read the instructions before you answer the questions. All questions must be answered. If a question is not applicable to your situation, answer N/A and proceed to the next question.

NOTE: Facility includes all buildings, equipment, structures and other stationary items which are located on a single site or on contiguous or adjacent sites which are owned or operated by the same person (or by any person which controls, is controlled by, or under common control with such person). For purposes of emergency release notification, the term includes motor vehicles, rolling stock, and aircraft.

DEFINITIONS

Please refer to the definitions below to clarify the precise meaning and use of the terms in the questionnaire.

By-pass: A piping system designed to provide an alternate pathway for gas or liquid streams that detours around a normal pathway. A by-pass condition refers to a systems operation using available by-pass systems. Certain instrument control alarms and interlocks may also be by-passed during abnormal operating conditions.

Containment System: Dikes, curbs, vaults, ponds and the like which serve to collect and temporarily hold spilled materials until such time as they are removed, disposed of, or transferred to a secure storage vessel.

Equipment (Mechanical) Failure: Failure of process or storage vessels, valves, piping, pumps or other equipment connecting vessels in a process which allows a loss of containment.

Extremely Hazardous Substance: Any element, compound, mixture, solution or substance designated under Section 302 of Title III of the Superfund Amendments and Reauthorization Act.

Facility Boundary: Fence line or property line marking the perimeter of a facility.

Failure Modes/Effects Analysis: A method for tabulating the system/plant equipment and their respective failure modes (description of how the equipment or system fails). The tabulation includes the effects of each failure mode on the system/plant and a critical ranking of them.

Fault Tree Analysis: A deductive technique that focuses on determining the causes of one accident event. The causes are determined using the fault tree - a graphic model that displays the various combinations of equipment faults and failures that can result in an accident event.

Federal Authority: Any federal government official delegated the responsibility under the Superfund statute for activities related to hazardous substance releases (e.g., National Response Center, U.S. Environmental Protection Agency and its regional offices).

General Public: Persons not present within the facility boundaries at the time the release occurred and/or with no business association to the facility owner (e.g., residents near the facility).

Hazard Assessment: Formal procedures employed to identify potential risks that could lead to an accidental release (e.g., Fault Tree analysis).

Hazard and Operability Studies: Formal team brainstorming to systematically identify hazards and operability problems throughout an entire facility. Certain guide words such as no flow and no cooling are used. The consequences of credible deviations associated with the guide words are identified and assessed.

Hazardous Substance: Any element, compound, mixture, solution or substance designated under Section 102 of the Comprehensive Environmental Response, Compensation, and Liability Act or Section 3001 of the Solid Waste Disposal Act.

Human Error Analysis (also known as Human Factors Analysis): A systematic evaluation of the factors that influence the performance, procedures and techniques of human operators, maintenance staff and other personnel. It will identify error likely situations that can cause an accident.

Immediate Response: Application of equipment, systems and procedures to capture, neutralize or destroy a hazardous substance before it is released to the environment (e.g., scrubber).

Incident: A release or a threat of release at your facility.

Local Authority: Any local government official responsible for remedial or related activities connected with a hazardous substance release (e.g., Local Emergency Planning Committee, fire department).

Loss of Containment: Release of hazardous substances from a process or storage vessel, interconnecting equipment and/or control equipment to the environment.

Migration: The movement of a substance from one place to another in air, water, soil or other media.

Operator Error: A mistake (e.g., leaving a valve open, failure to respond to process alarms, failure to maintain process variables or conditions at set point) made during operation of a process by the operator resulting in a release or loss of containment.

Owner: The legally designated individual, partnership or parties that own the facility.

Probabilistic Risk Assessment: The overall measure of risk determined through numerical evaluation of both accidental consequences and probabilities. This method is used to assess comparative risk where alternative designs exist.

Process Control and Monitoring: Control and detection equipment that provide information on the process status, standard operating conditions or parameters, and possible or imminent releases (e.g., pressure sensors, temperature sensors, chemical detectors on process lines).

Process Design: Design of process equipment and systems to limit the potential for accidental releases

(e.g., redundant systems).

Process Vessel: A tank, reactor, vat or other piece of equipment in which substances are blended to form a mixture or are reacted to convert them to some other product or form.

Release: Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing (including the abandonment or discarding of barrels, containers and other closed receptacles) of an extremely hazardous or hazardous substance into the environment from a storage or process vessel.

Responding Official: Person responsible for the final review of the information provided in the survey questionnaire for completeness and accuracy, (e.g., facility safety officer, environmental engineer, plant manager).

Response: Application of equipment, systems and procedures to capture, neutralize or destroy a hazardous substance after it is released to the environment (e.g., cleanup).

Standard Industrial Classification: The federal government categories of business activity. See Standard Industrial Classification Manual, Office of Management and Budget, U.S. Government Printing Office, Washington, D.C.

State Authority: Any state government official responsible for remedial or related activities connected with a hazardous substance release (e.g., State Emergency Response Commission, state transportation office).

Storage Vessel: Any container (e.g., tank, drum, bottle, tank car, cylinder) used to hold a raw or input material, a product or a by-product at ambient conditions or at an elevated or reduced temperature or pressure.

Upset: Process deviation from standard conditions because of a malfunction or failure of process controls, alarms or backup systems. These conditions could result from operator error, mechanical or equipment failure, or from unexpected events such as fire, explosion, power loss or water loss.

What If Analysis: Considers consequences associated with events that occur as a result of failures involving equipment, design or procedures. All possible system failures are collected in a list and evaluated (e.g., what if the feed pump fails). This method requires a basic understanding of what is intended, and the ability to combine possible deviations and to reject incredible situations.

1. Definition derived from Guidelines for Hazard Evaluation Procedures, AIChE, 1985, and from the Review of Emergency Systems, EPA, June 1988.

Enclosure 2

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7
11201 RENNER BOULEVARD
LENEXA, KANSAS 66219**

RELEASE QUESTIONNAIRE
Information Request Pursuant to CERCLA § 104(e)

A. Responsible Party Information

Name:	Talya Mayfield
Email Address:	talya.mayfield@greenamericarecycling.com
Website:	
NAICS Code:	562211
Number of Full Time Employees:	66
Number of Part-Time Employees:	0
Number of Contract Employees at Time of Incident:	0

B. Mailing Address

Street:	10107 Hwy 79		
City:	Hannibal		
County:	Ralls		
State:	Missouri	Zip Code:	63401

C. Physical Address

Street:	Same		
City:			
County:			
State:		Zip Code:	
Latitude (+) and Longitude (-) (if known):			

x ☐ Check here if incident location is the same as the Facility Physical location in Question 1.
Otherwise, complete the following:

D. Incident Location

Street:	Same		
City:			
County:			
State:		Zip Code:	
Lat./Long. of Release Location:		Milepost (if applicable):	

E. Federal, State and Local Authorities Notified (e.g., NRC, EPA Regional Office, SERC, LEPC, Police, Fire Department, 911): Please include all notifications made by the facility concerning this release during and after the release or during multi-day releases. For multi-day events, provide information for every day of release.

AGENCY	DATE (mm/dd/yy)	TIME 24 Hour Clock (Please specify time zone)	PERSON CONTACTED
MSHA	04/11/2020	1:30 PM CST	Hotline
Hannibal Rural Fire Department	4/11/2020	12:45 PM CST	Mike Dobson -Fire Chief/LEPC
Missouri Department of Natural Resources	4/13/2020	Phone: E-mail: 3:37 p.m.	Jillian Hunt
Environmental Protection Agency	4/13/2020	E-mail: 4:49 p.m.	Patricia Murrow
Environmental Protection Agency	4/13/2020	Phone	Sean Galvas

F. Reporter

Provide the name, title and contact information of the individuals who made the notification to agencies listed in Question E:

Name:	Talya Mayfield
Title:	EHS Manager
Contact Information:	talya.mayfield@greenamericarecycling.com (573)231-6444

G. Incident Times

This section asks several questions concerning the release of hazardous substances. Provide information for each substance(s) released. If exact responses cannot be provided, so indicate and provide estimates using your best professional judgment. Attach additional pieces of paper, if necessary.

	Date (mm/dd/yy)	Time (24-Hr Clock) (Specify Time Zone)
Incident Began:	04/11/2020	12:44 PM CST
Incident Initially Detected:	04/11/2020	12:44 PM CST
Reportable Quantity Met or Exceeded:	N/A	N/A
Incident Ended:	04/11/2020	12:45 PM CST

H. Incident Response

Agencies and Contractor(s) that Responded to Release:	MSHA (responded to insert summary of scope of MSHA investigation)
	Hannibal Rural Fire District (responded to incident, no fire")

I. Substance Information

In the table below, provide release estimates for the substance(s) released (in pounds only) to each media. Quantities released to each media should add up to the total quantity released. For solutions, adjust the quantity of the substance released for substance concentration (e.g., report 1,000 lbs of 50% sulfuric acid released as 500 lbs sulfuric acid). Attach a Material Safety Data Sheet (MSDS) for each substance. For multiple substances attach an additional copy of this page for each substance.

		Media	Quantity/Lbs
Substance Name:	The incident is under investigation. GAR's preliminary investigation indicates the incident was caused by material in one of four drums received from Clean Earth of Calvert City on April 7, 2020.	Air:	Unknown. Investigation ongoing.
CAS #		Surface Water:	None
DOT UN#		Land:	None
RCRA Waste Code: (if applicable)	The waste was manifested by the generator with hazardous waste codes D001, D005, D007, D008, D010, and D035. Based on the preliminary investigation, GAR does not believe the manifests were correct. Instead, GAR analyzed the material via a 3 rd party lab and found the material to be Glycidyl Azide Polymer-GAP-5527 Polyol.	Sewer to Treatment Facility:	None
Physical State at Time of Release:	The drums were manifested by the generator as waste flammable liquids Xylene and Toluene. The preliminary investigation indicates that the drums contained liquid waste.	Total Quantity of Substance Released:	One drum deflagrated; GAR believes the total capacity of the drum was approximately 35 gallons. The preliminary investigation indicates the drum may not have been full.

- a. Is this substance reported on an EPCRA Tier II report or this facility? ☐ Yes ☒ No
- b. Is this substance in a Clean Air Act Risk Management Program process? ☐ Yes ☒ No
- c. Was this substance reported on your facility's EPCRA 313/TRI for the last calendar year?
☐ Yes ☒ No

Indicate As Follows:

	Quantity/Time	Units
Average Release Rate:	GAR's preliminary investigation indicates that one of the four drums deflagrated but did not subsequently catch fire. Much of the incident appeared to be contained in the building, though dust was identified after the incident.	
Maximum Release Rate:	Unknown	
Estimated Amount of Material Released During the First Minute of Incident:	Unknown	

J. Indicate the weather conditions at the time of the release. Approximations are acceptable, however, identify the source of the information.

Source of Information:	https://www.wunderground.com/history/daily/KUIN/date/2020-4-11		
Wind Speed (miles per hour):	Max speed 22mph	Temperature (Fahrenheit):	53.8
Wind Direction (from):	SSW	Precipitation:	0.00
Relative Humidity:	N/A	Cloud Cover:	Cloudy

K. Indicate the number of persons injured, hospitalized and fatalities that occurred as a result of the release:

	Injuries	Hospitalized	Fatalities
Facility Employees:	1	0	0
Contractors:	0	0	0
General Public:	0	0	0
Responders:	0	0	0

L. Indicate the number of persons evacuated and/or sheltered in-place as a result of the release:

	Evacuated	Sheltered In Place
Facility Employees:	All employees moved from the area because of deflagration	0

Contractors:	0	0
General Public:	0	0

Enclosure 3

RELEASE QUESTIONNAIRE

Information Request Pursuant to CERCLA § 104(e)

This release questionnaire asks several questions concerning the release of hazardous substances. Provide information for each substance(s) released. If exact responses cannot be provided, so indicate and provide estimates using your best professional judgment. Attach additional documentation to your response to this information request where required.

1. Provide as an attachment any and all documentation regarding notification made to the agencies listed in Question E. This includes, but shall not be limited to, call logs and reports. The following are attached: Report from Hannibal Rural Fire Department; e-mail to MDNR dated 4/13/20 at 3:37 p.m. attached; 103 K order issued by MSHA attached. 103K order prevents entry of the incident scene to all persons without authorization by MSHA.
2. Provide any and all supporting documentation regarding times listed in response to Question G. See Report from Hannibal Rural Fire Department
3. Describe how the release was initially detected. Employees heard and/or witnessed the incident.
4. Provide the calculations regarding the amounts listed in Questions I and J. N/A
5. What actions did the facility take between the time the release was initially detected and the time that federal, state and local officials (NRC, SERC and LEPC) were notified? Facility personnel immediately began assisting the injured employee and called 911.
6. Provide the name, title and phone number of the person who made the initial detection of a potential release. What actions were taken by this person to report the release? John Schindler, GAR Maintenance employee, called 911 to report the explosion and request an ambulance for the injured employee.
7. Provide the name, title and phone number of the person who determined when the reportable quantity was reached or exceeded, as well as the date and time of that determination. What actions were taken by this person to determine the quantity of the release and the time and date he had knowledge that the release exceeded the applicable RQ: GAR does not believe a reportable quantity was reached or exceeded. Glycidyl Azide Polymer GAP-5527 Polyol is not an extremely hazardous substance defined by EPCRA or a hazardous substance as defined by CERCLA, and does not have a reportable quantity. GAR's investigation is ongoing. Talya Mayfield, Environmental Health and Safety Manager, made this determination after working with the Hannibal Rural Fire Department, reviewing manifested information, conducting an analysis of material believed to be in drum that GAR's investigation and reviewing the lists of extremely hazardous substances and hazardous substances.
8. Describe where the release occurred and attach a map or diagram (to scale) of your facility showing facility boundaries and buildings and identifying the location and path of migration of the release. GAR's preliminary report from April 20, 2020 is attached hereto and includes photos and aerials of the location.
 - a. Where did the release occur, indoors or outdoors? For indoor releases, was the entire release

captured inside the building during the entire incident? If yes, explain how. The deflagration occurred inside the Quad Shredder building. The building was damaged, as shown in the attached preliminary report of April 20, 2020.

9. Did any quantity of the released material migrate off the facility boundaries: (Please note that releases to the air should be assumed to migrate off the facility boundaries.) If no, explain how this was accomplished. GAR's investigation is ongoing. Based on preliminary determinations, the incident occurred inside. While the building was damaged by the blast, it appears the building contained the large majority of smoke/materials with the exception of dust, and tin sheeting and insulation found on the ground. There was no fire after the explosion.

10. Describe the source and causes of the release and how the release occurred. GAR's investigation is ongoing. Based on preliminary findings, the incident was caused by materials received from Clean Earth of Calvert City on April 7, 2020. GAR is still investigating the contents of the drum, but GAR's preliminary investigation has determined it contained Glycidyl Azide Polymer GAP-5527.

- a. Was an accident/incident investigation performed? If so, when did it start, who performed it, and was a report written? Please attach any and all accident/incident investigation(s) and any and all supporting documentation. Yes. An accident investigation was undertaken shortly after the accident (on April 11, 2020). The preliminary report has been provided to EPA and MDNR, and is attached hereto for reference. Talya Mayfield performed the investigation. A more in-depth investigation is ongoing.

11. Are substance(s) involved in this release included in any permit issued to the facility? If yes, please list the permit numbers and who issued them. No
12. Has this facility submitted a Continuous Release Report pursuant to EPCRA 304 and CERCLA 103 for this substance? If yes, what was the total annual amount of the substance(s) released in the previous year (in pounds)? If yes, what are the upper and lower bounds of the normal range of the release (in pounds or kilograms)? If yes, what is the Continuous Release case number assigned by the National Response Center? No.
13. Indicate how the information listed in Question L was obtained (medical center, fire department, LEPC, facility records, etc.)
- Please provide your facility's OSHA 300 log for the year covering the incident, if you are required to maintain one. Regulated by MSHA
 - How was the number of persons evacuated and/or sheltered in-place as a result of the release obtained? No one was evacuated or told to shelter in place as a result of the explosion. This determination was made by the Hannibal Rural Fire Department.
14. Did the facility receive any inquiries or complaints from off-site sources regarding the release? GAR only received inquiries from local news
15. Indicate all environmental effects that occurred as a result of the release, including but not limited to fish kills, vegetation damage, soil removal, groundwater contamination, wildlife kills, etc. building damage; no other damage identified
16. Estimate the dollar amount of property damage that occurred as a result of the release as follows:
- On-site: GAR estimates damage between \$1.5 and \$2 Million. This estimate is preliminary and subject to change.
 - Off-site: none
17. Was a written follow-up notice provided to the LEPC and SERC? If so, when was it sent? Please provide a copy(s) of the written follow-up notice. Hannibal Rural Fire Department Chief was onsite who is also a member of the LEPC; preliminary incident investigation also provided to MDNR (Jillian Harris) and EPA (Christine Hoard) along with discussions with MDNR and EPA.
18. Describe how the released material is used at your facility. What is the maximum amount, in pounds, of the released material that you have on-hand at any one time at your facility and the total manufactured or processed during the preceding calendar year? GAR accepts wastes to be converted to fuel. GAR's storage capacity is dictated by its RCRA Part I Permit.
19. What formalized hazard evaluation was performed prior to this release at the process or storage area within your facility where the accident occurred? When was it last conducted? How frequently is this evaluation conducted (e.g., every 5 years)?
- Failure Modes/Effects Analyses
 - Fault Tree Analyses
 - HAZOP Studies
 - Human Error Analyses

e. What If Analyses

f. No evaluation ever done for this area

g. Other evaluation (describe the evaluation, indicate frequency, date completed)

In 2017 GAR performed extensive analyses on the quad shredder system which resulted in multiple upgrades in 2018. Results of these analysis included upgrades to the nitrogen inerting system and ventilation system which included direct capture of emissions to its own dedicated carbon canister system. 2019 evaluation and repair of the system is captured in maintenance documentation and logs.

20. Was the hazard evaluation performed effective in predicting a release event like this incident? Why or why not? No

21. Has a release of the same substance occurred in the last 5 years? No.

22. Did the released material include oil of any kind or in any form, including, but not limited to petroleum, fuel oil, vegetable oil, animal oil, oily refuse and oil mixed with wastes? If yes, describe the type of oil. NOTE: A separate query may be sent by the EPA pertaining to the discharge and/or storage of oil. No. No

23. Did the released material reach a wastewater treatment plant? Is the treatment plant on-site or off-site? If off-site, provide the name and location of this water treatment plant. If off-site, does your facility have a pretreatment permit? Please provide a copy of that permit. No.

24. Provide the name and location of any waterway (river, stream, creek, lake or pond) potentially impacted, including tributaries, drainage ditches or storm sewers? Was any water present in the waterway (creek, drainage ditch or storm sewer) at the time of the release? No.

25. What was the amount of the released material deposited on the adjoining shoreline and/or in the above-named waterway, ditch or storm sewer? None.